



Payload 3 Daily Flight Report



Date: 2023-04-11

Flight Campaign ID: P3C1

Airport, FBO ID, City: Boulder Municipal Airport (KBDU) - Boulder, CO

Aircraft: N934MU

Domain: 00 (Training & Calibration)

Sites Flown: R10C (Table Mountain Radiometric Calibration - Riegl), V10C (Boulder City South)

Days left in Domain: 7

Report Author: Mike

Lidar Operators: Mike

Flight Hours: 01:26

Spectrometer Operators: John **Hours until maintenance:** 117.48

Pilots: Jeff, Paul N

GPS Instruments: AOP_KBDU

Ground Crew: Nick

Summary

Skies were clear and beautiful in Boulder today. P3 reached optimal temperature last night and was taken out for the Table Mountain Radiometric, with Bridget and Murph on the ground performing ASD measurements. After that the flight crew collected a few testing and training lines at Boulder City South.

Concerns

None

Comments

During the Boulder City South collection, three total Lidar lines were collected at 25% power and 400, 360, and 280 khz PRR rates. No issues were witnessed.

Daily Coverage

Estimated Cloud Cover Key

Green:	Yellow:	Red:
0-10%	11-50%	>50%

D00|R10C

Line #	1	2	3	4	5
Lidar	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓
Cloud Cover					

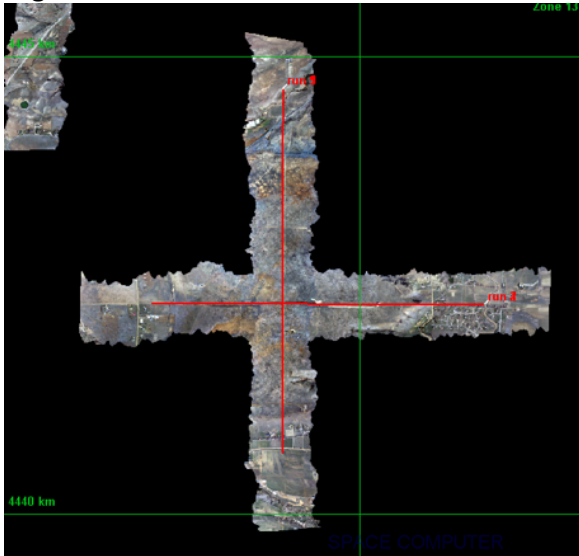
Total number of lines flown: 5

D00|V10C

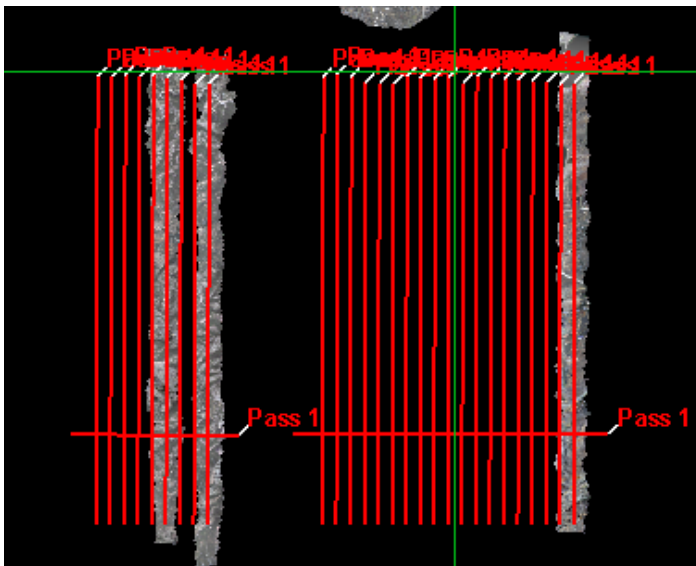
Line #	1	20	23
Lidar	✓	✓	✓
Spectrometer	✓	✓	✓
Camera	✓	✓	✓
Cloud Cover			

Total number of lines flown: 3

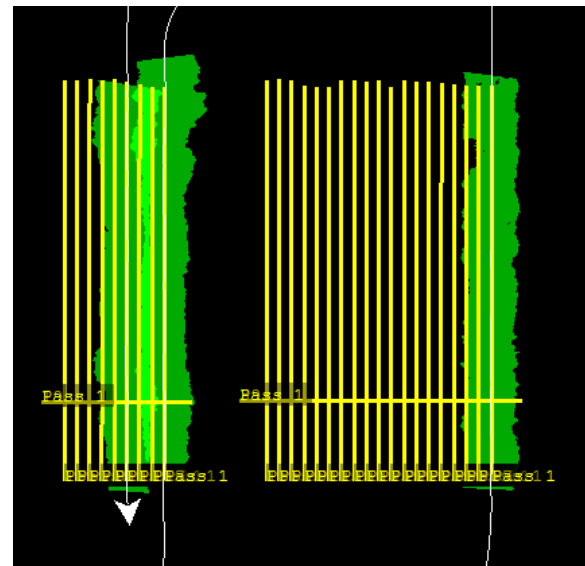
Flight Screenshots



NIS radiometric flight plan, Lidar not active



NIS - V10C



Lidar - V10C

Pictures



Calibration tarps at Table Mountain



Clear skies above the entire area including Mt. Meeker and Long's Peak

Cumulative Domain Coverage

D00|B10E (Riegl Boresight Calibration - 1600m, 1000m, 500m)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Flown: 0% (0/20)

Green: 0% (0/20)

Yellow: 0% (0/20)

Red: 0% (0/20)

D00|H10C (NEON Headquarters Lidar Test - Riegl)

1	2	3	4
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Flown: 100% (4/4)

Green: 0% (0/4)

Yellow: 0% (0/4)

Red: 100% (4/4)

D00|N10D (Nominal Runway at KBDU - Riegl)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28												

Flown: 14% (4/28)

Green: 14% (4/28)

Yellow: 0% (0/28)

Red: 0% (0/28)

D00|O10B (NIS Offset - Riegl)

1	2
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Flown: 0% (0/2)

Green: 0% (0/2)

Yellow: 0% (0/2)

Red: 0% (0/2)

D00|R10C (Table Mountain Radiometric Calibration - Riegl)

1	2	3	4	5
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Flown: 100% (5/5)
 Green: 100% (5/5)
 Yellow: 0% (0/5)
 Red: 0% (0/5)

D00|R10D (Boulder Airport Radiometric Calibration)

1	2	3	4	5
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Flown: 100% (5/5)
 Green: 100% (5/5)
 Yellow: 0% (0/5)
 Red: 0% (0/5)

D00|V10C (Boulder City South)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29											

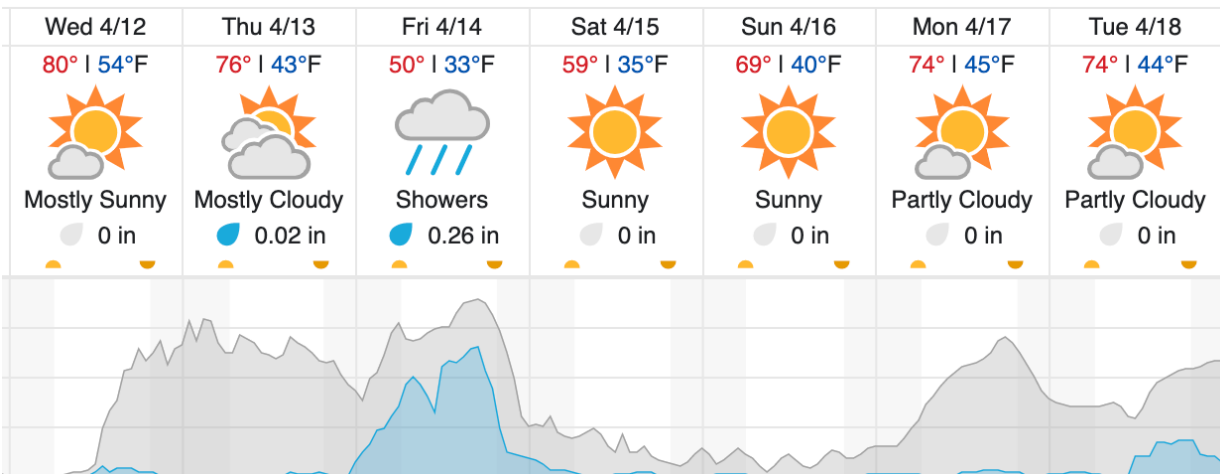
Flown: 21% (6/29)
 Green: 10% (3/29)
 Yellow: 0% (0/29)
 Red: 10% (3/29)

D00|W10C (Wiggle Timing Test - Riegl)

1	2
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Flown: 100% (2/2)
 Green: 0% (0/2)
 Yellow: 0% (0/2)
 Red: 100% (2/2)

Weather Forecast



Cloud Cover (%)	Chance of Precip. (%)
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source: wunderground.com

Flight Collection Plan for April 12th, 2023

Flyority 1

Collection Area: Boresight Calibration – Greeley, CO

Flight Plan Name: D10_B10E_Boresight_1600m_Q780 (RiAcquire name: D10_B10E_Boresight_Apx_Q780)

30° On-station Time: 1510 UTC / 0910 L

Additional Considerations: No recent snowfall, clear roofs required.

Flyority 2

Collection Area: Nominal Runway Survey Flight Plan

Name: D10_N10D_Nominal_Rnwy_v8_Q780

On-Station Time: Daylight – No solar angle restrictions.

Additional Considerations: Runway should not be wet or snow covered.

Flyority 3

Collection Area: NIS Offset Flight

Flight Plan Name: D10_O10B_NIS_Offset_v2_Q780

35° On-station Time: 1540 UTC / 0940L

Crew: Mike, John, Nick, Matt